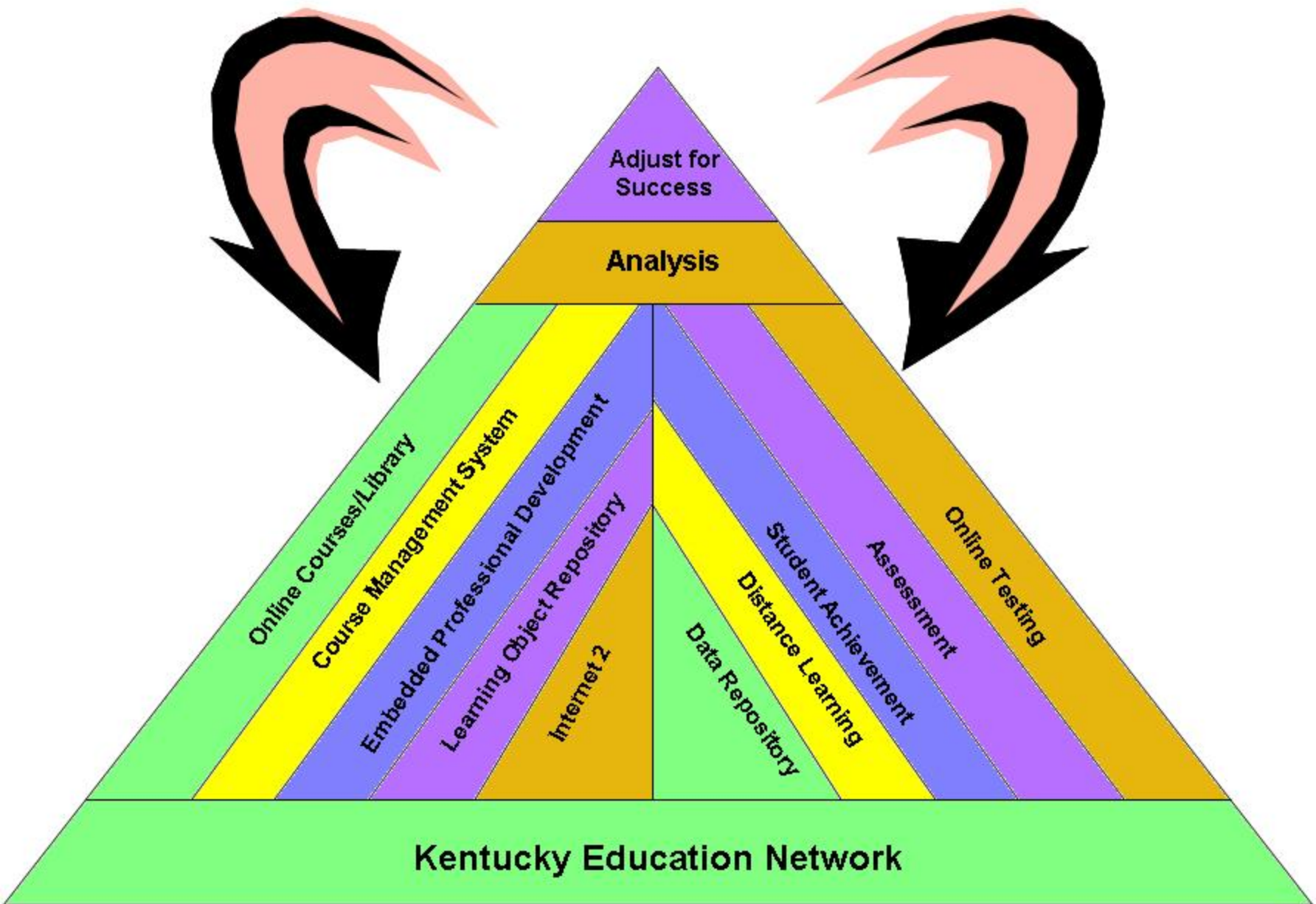


Statewide Technology Initiatives

The **Kentucky Education Network (KEN)**, approved by the Kentucky General Assembly in 2006, will be a high-speed education centric network. The purpose of KEN is to facilitate the development, deployment, and operation of a set of seamless P-16 applications. It will support advanced research and education applications in order to further Kentucky's educational agenda. It will connect every college, university, and K-12 school district in the state to enhance the learning experience of students at all educational levels, regardless of geographic location. The agencies of the Education Cabinet and their statewide locations also will be connected (see attached – KEN Pyramid.jpg & KEN Oversight Organization.pdf).

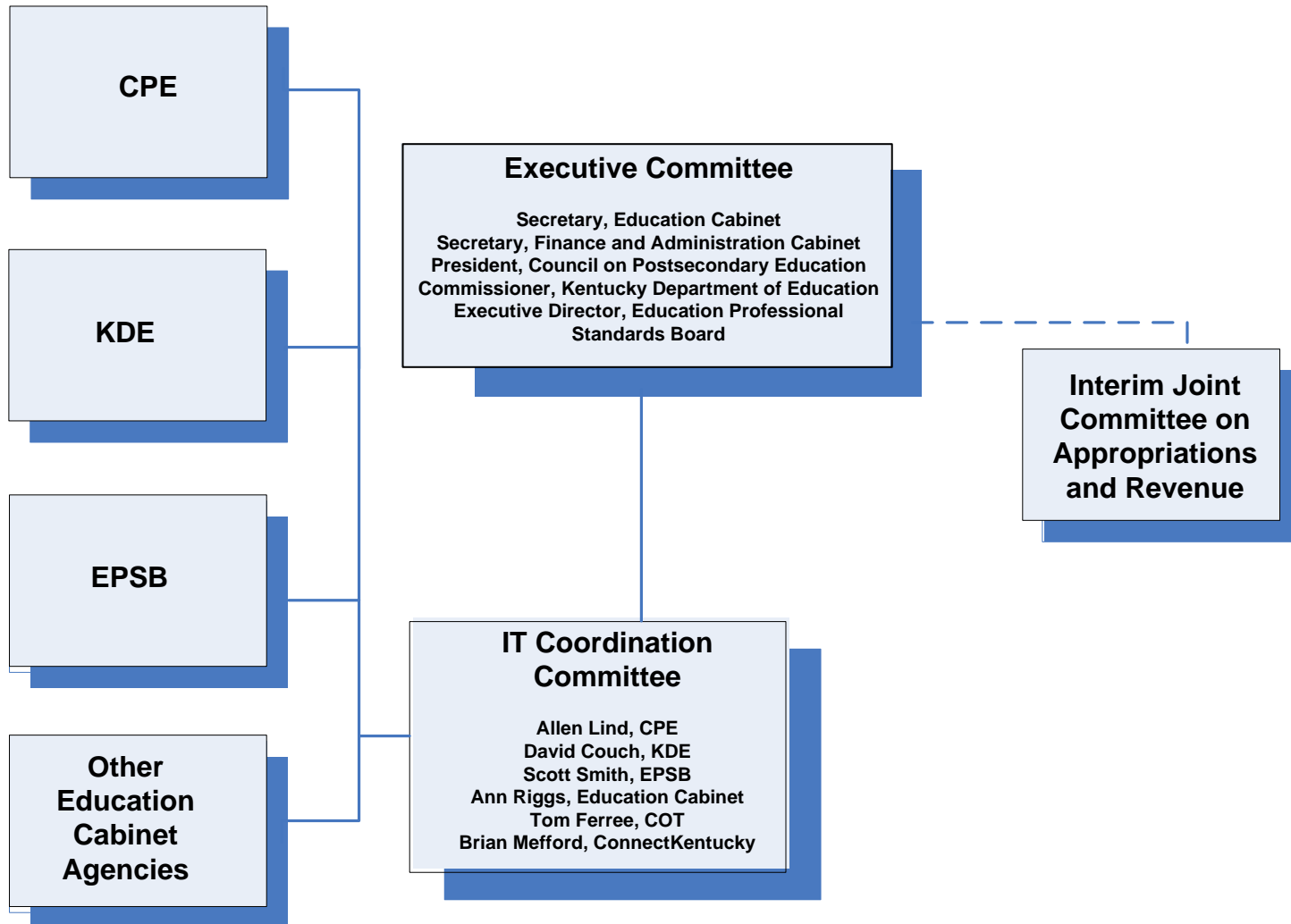
Statewide BlackBoard License Consortia. Education leaders in Kentucky went to extraordinary lengths to construct a statewide standard for Classroom Management Systems (CMS) that will serve all learners: K-12, postsecondary, and adult workforce. The emerging partnership with BlackBoard, Inc., enables institutions to embrace the full power of the Internet with access to any learning resource at any time from any place. The CMS workgroup will explore opportunities to extend this relationship with BlackBoard, while facilitating communication and collaboration among Kentucky educators. A model for shared training has already been funded and successfully put into practice. Additional opportunities may include centralized hosting solutions, a shared learning objects repository, and integrated, improved assessment of student learning outcomes.

Internet2 (see attached) is a research and development consortium led by over 200 U.S. universities working in partnership with industry and government to develop and deploy advanced network applications and technologies, accelerating the creation of tomorrow's Internet. The Sponsored Education Group Participants (SEGP) program, initiated in 2001, allows expanded access to Abilene for state and regional networks, through sponsorship by Internet2 university members. Sponsored by the University of Kentucky, Kentucky became the 34th state to join SEGP in 2005. This opens the Internet2 access to comprehensive universities, KCTCS, K-12 schools, and the agencies under the Education Cabinet.



Kentucky Education Network

8/31/2006



Internet2 (www.internet2.edu); KY Internet2 Initiative (i2.ky.gov)

I. What is Internet2?

Internet2 is a research and development consortium led by over 200 U.S. universities working in partnership with industry and government to develop and deploy advanced network applications and technologies, accelerating the creation of tomorrow's Internet. On April 14, 1998, Vice President Al Gore announced the Abilene network during a ceremony at the White House. Initial operation began in February 1999 and full deployment of a 2.5 gigabits-per second backbone was completed by the end of 1999. Abilene underwent an upgrade to 10 gigabits per second including native IPv6 capabilities in 2003.

II. Who has access to Internet2 in Kentucky?

Only the University of Kentucky and the University of Louisville have been members of Internet2 having access to the Abilene backbone. The Sponsored Education Group Participants (SEGP) program, initiated in 2001, allows expanded access to Abilene for state and regional networks, through sponsorship by Internet2 university members. State and regional networks may include nonprofit and for-profit K-20 educational institutions, museums, libraries, art galleries, or hospitals that require routine collaboration on instructional, clinical, and/or research projects, services, and content with Internet2 members or with other sponsored participants. In 2005, there were already 33 state K-12/K-20 networks participating when Kentucky joined as the 34th state in the SEGP program under the sponsorship of the University of Kentucky. This opens the Internet2 access to comprehensive universities, KCTCS, K-12, and the Education Cabinet.

III. What does this mean to education in Kentucky?

Internet2 applications, via high bandwidth and high performance, enable collaboration among researchers, instructors, and students and interactive access to information and resources in a way not possible on today's Internet. For example:

1. K-20 interactive collaboration – A science teacher in Owsley County can dissect an anatomical specimen for her class, zooming, rotating, and putting it back together, and discuss this virtual dissection with researchers at Murray State University and Stanford University in real time.
2. Resource-sharing – Math teachers in Clay County can interactively participate in professional development workshops conducted live from the University of North Texas and Western Kentucky University without leaving their classrooms.
3. Remote instrumentation – A student in Frankfort High School taking a biology class can operate a microscope located in Lehigh University in real time.
4. Digital libraries – A student in Bowling Green can perform simultaneous, intelligent search and retrieval of KET's rich reservoir of videos, the Kentucky History Center's oral tapes and artifacts, and the Filson Club's photographs as she works on her multimedia assignment on western Kentucky's history.
5. Performing arts – A student of violin in Powell County can audition or take a master class with the Manhattan School of Music via Internet2 H.323 videoconferencing with low latency in audio and video.